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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/811,391	03/29/2004	Masao Utsunomiya	108421-00094	3072

7590 08/30/2006

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EXAMINER
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PARSONS, THOMAS H

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/811,391	<b>Applicant(s)</b> UTSUNOMIYA ET AL.	
	<b>Examiner</b> Thomas H. Parsons	<b>Art Unit</b> 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Response to Arguments***

This is in response to the Arguments filed 13 July 2006.

**(Previous) DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The rejections of claims 1-5 under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement have been **withdrawn** in view of Applicants' arguments, see n page 3, line 8 through page 4, line 4.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 5 **stand** rejected under 35 U.S.C. 102(b) as being anticipated by JP10-228914.

**Claim 1:** JP10-228914 in Figure 1 discloses a metallic separator (1) for a fuel cell (10, 11), comprising a stainless steel plate (1) having a surface, wherein gold (8) is coated on the surface at 2.3 to 94% of area rate (i.e. the gold is plated only on the square-wavy top portion of the separator) without surface treatment (i.e. the gold is coated directly onto the stainless steel plate). See abstract and paragraphs [0004]-[0008].

**Claim 5:** JP10-228914 in Figure 1 discloses production method for a metallic separator (1) for a fuel cell (10, 11), comprising a stainless steel plate (1) having a surface, the method comprising a step of coating gold on the surface in an acid bath without performing surface treatment (i.e. the gold is coated directly onto the stainless steel plate), wherein the gold is coated on the surface at 2.3 to 94% of area rate (i.e. the gold is plated only on the square-wavy top portion of the separator). See abstract and paragraphs [0004]-[0008].

On page 4, the Applicants state “Claim 1, as amended, recites that gold is coated on the surface at 2.3 to 94% of area rate with respect to an area where the gold is coated without surface treatment by a nickel coating. The Office Action took the position that because the gold is plated only on the square-wavy top portion of the separator, that the gold is coated on the surface at 2.3 to 94% of area rate. See page 3, lines 1-5 of the Office Action. The Applicants respectfully submit, however, that there is no disclosure or suggestion that gold is coated on the surface of the stainless steel plate in JP 10-228914 at the claimed area rate with respect to an area where the gold is coated without surface treatment by a nickel coating.”

“Further, JP '914 discloses that there is no pin hole in the area where the gold is coated. See paragraph [0006] of JP '914. That is, the area rate where the gold is coated is 100% in JP '914. Therefore, JP 6914 fails to disclose or suggest the claimed features of the invention.”

In response, JP '914 in paragraph {004} discloses, “...performing direct gold plate to the contact surface...” Direct gold plate has been construed as anticipating coating without surface treatment.

Art Unit: 1745

JP '914 in Figure 1 shows a metallic (i.e. stainless steel) separator (1) wherein a gold plate layer (9) is formed on a bulging tip side edge (8). When the separator is inserted between unit cells 10 and 11, electrodes 12 and 13 of the unit cells and the gold layer (9) touch each other. Only a small area of the electrode has been gold plated (an area less than the total area of the separator. The area of the bulging tip side edge that has been plated anticipates coating on the surface at 2.3 to 9.3 % of the area rate.

On page 5, with respect to claim 5, the Applicants argue, "...there is no disclosure or suggestion in JP 10-228914 that the gold is coated on the surface of a stainless steel plate in an acid bath without performing surface treatment. JP 10-228914 merely discloses cleaning the separator material using an inorganic mixing acid and there is no disclosure or suggestion in the reference of an acid bath."

In response, JP '914 in paragraph [008] discloses using a cyanogens golden potassium solution (i.e. a potassium gold cyanide solution) as the acid bath for plating the metallic separator.

### ***Claim Rejections - 35 USC § 103***

The rejection of claims 2-4 under 35 U.S.C. 103(a) as being unpatentable over JP10-228914 as applied to claim 1 above, and further in view of Underwood (2,133,996) have been **withdrawn** in view of Applicants arguments on page 6, paragraph 2 through page 7, line 12.

***Allowable Subject Matter***

4. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Reasons for Indicating Allowable Subject Matter***

5. The following is a statement of reasons for the indication of allowable subject matter:

The claimed invention is concerned with the amount of gold ( $\text{mg}/\text{cm}^2$ ) coated with respect to an area where the gold is coated, and the average grain diameter of the gold which is coated.

In contrast, the prior art of record is concerned with the amount of gold in 1 liter of a gold plating bath and fails to teach or suggest the amount of gold with respect to an area where the gold is coated, or the average grain diameter of the gold which is coated. The specific amount of gold in the bath is sufficient to provide a gold electroplated (coated) surface having high resistance to corrosion and acid attack. The prior art of record is not concerned with the amount of gold coated in an area of the surface, or the average grain diameter of the electroplated gold.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

Art Unit: 1745

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas H. Parsons whose telephone number is (571) 272-1290. The examiner can normally be reached on M-F (7:00-4:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pat Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
PATRICK JOSEPH RYAN  
SUPERVISORY PATENT EXAMINER

Thomas H Parsons  
Examiner  
Art Unit 1745

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